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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,051	09/26/2003	W. Karl Olander	ATMI-622-CIP	7179

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EXAMINER	
PHAM, MINH CHAU THI	
ART UNIT	**PAPER NUMBER**
1724	

DATE MAILED: 11/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/672,051	OLANDER ET AL.	
	Examiner	Art Unit	
	Minh-Chau T. Pham	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-30 are again rejected under 35 U.S.C. 102(b) as being anticipated by Chen et al (5,350,336).

Chen et al teach a semiconductor manufacturing process facility col. 1, lines 6-10 and lines 27-31) requiring an air exhaust for its operation (col. 4, lines 36-40) wherein the clean room has at least one semiconductor manufacturing tool therein (col. 1, lines 27-31) and wherein air exhaust is flowed through a clean room (12 in Fig. 1, col. 4, lines 51-56) and the facility comprising an air exhaust treatment apparatus arranged to receive air exhaust after flow thereof through the clean room and produce a treated air exhaust and recirculate the treated air exhaust to the ambient air environment (col. 5, lines 8-18). Chen et al further teach the exhaust treatment apparatus comprising a chemical filter to remove contaminant species therefrom and an air filter to remove particulate material therefrom (col. 5, lines 33-61, col. 7, lines 12-18). Chen et al also teach a heat exchanger (col. 4, line 34) in the exhaust treatment apparatus to cool air exhausted flowed therethrough (col. 6, line 60 through col. 7, line 5). Chen et al further teach at least one semiconductor manufacturing tool including an ion implanter (see 24 in Fig. 3), and chemical filter comprising chemisorbent which is chemically reactive with at least one gas species selected from the group consisting of hydrides, halides, acid gases and organometallic reagents (see col. 7, lines 47-65).

Response to Amendment

Applicant's arguments filed on August 31, 2005 have been fully considered but they are not persuasive.

Applicant argues that the cited primary reference Chen does not disclose "a semiconductor manufacturing process facility wherein air exhaust is flowed through a discrete volumetric region of the clean room and the facility comprising an air exhaust treatment apparatus to clean the exhaust air and recirculate the treated air exhaust to the environment of the facility". The Examiner still maintains Chen et al as the primary reference to show a semiconductor manufacturing process facility col. 1, lines 6-10 and lines 27-31) requiring an air exhaust for its operation (col. 4, lines 36-40) wherein the clean room has at least one semiconductor manufacturing tool therein (col. 1, lines 27-31) and wherein air exhaust is flowed through a clean room (12 in Fig. 1, col. 4, lines 51-56) and the facility comprising an air exhaust treatment apparatus arranged to receive air exhaust after flow thereof through the clean room and produce a treated air exhaust and recirculate the treated air exhaust to the ambient air environment (col. 5, lines 8-18). Chen et al further teach the exhaust treatment apparatus comprising a chemical filter to remove contaminant species therefrom and an air filter to remove particulate material therefrom (col. 5, lines 33-61, col. 7, lines 12-18). Chen et al also teach a heat exchanger (col. 4, line 34) in the exhaust treatment apparatus to cool air exhausted flowed therethrough (col. 6, line 60 through col. 7, line 5). Chen et al further teach at least one semiconductor manufacturing tool including an ion implanter (see 24 in Fig. 3), and chemical filter comprising chemisorbent which is chemically reactive with at least one gas species selected from the group consisting of hydrides, halides, acid

gases and organometallic reagents (see col. 7, lines 47-65), as claimed. Chen et al clearly teach a semiconductor manufacturing facility with process tool housings, cabinets, fume regions, abatement units, containment enclosures, and other discrete volumetric regions within the plant (see Figures 3 and 4), and each region clearly having a discrete volumetric region (see 24 and 28 in Figs. 3 and 4) within the plant (see the enclosure in Figs. 3 & 4).

Regarding to the limitation of "recirculation of the treated exhaust air back to the environment of the facility", Chen et al do disclose that "Figure 2 depicts the recirculation of air to maintain a clean environment in the lab, that is the tunnel and aisle (not shown in this figure). A blower (90) forces air from the lower floor (30) into plenum and through filters (not shown) in the ceiling to the lab area. The clean air is then forced through opening (15) in the floor (14) to the lower floor where it is then recirculated, as indicated by arrows (92)" (see col. 8, lines 29-36). Therefore, Chen et al clearly disclose the air through the processing area is treated through the filters and then is recirculated back to the environment of the facility, as claimed.

Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the rejection, as discussed above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Chau T. Pham whose telephone number is (571) 272-1163. The examiner can normally be reached on Mon/Tues/Thur/Fri 7:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Minh-Chau Pham
Patent Examiner
Art Unit: 1724
November 21, 2005